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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/517,075	07/05/2005	John J. Hensch	VOY-022US	8730
37694 7590 12/18/2009 WOOD, HERRON & EVANS, LLP (TOKYO ELECTRON) 2700 CAREW TOWER 441 VINE STREET CINCINNATI, OH 45202			EXAMINER GAUTHIER, GERALD	
			ART UNIT	PAPER NUMBER
			2614	
			NOTIFICATION DATE	DELIVERY MODE
			12/18/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

dgoodman@whcpatent.com
usptodock@whcpatent.com

Office Action Summary

Application No.

10/517,075

Applicant(s)

HENCH, JOHN J.

Examiner

Gerald Gauthier

Art Unit

2614

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 September 2009.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-3, 6-11 and 14-39 is/are rejected.
7) ☐ Claim(s) 4, 5, 12 and 13 is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB-06)
4) ☐ Interview Summary (PTO-413)
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____
Paper No(s)/Mail Date _____

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. **Claims 7, 8, 15 and 16** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
3. Claim 7 recites the limitation "the high-pass filter circuit and the low-pass filter circuit" in lines 2 and 3. There is insufficient antecedent basis for this limitation in the claim.

Claim 8 recites the limitation "the multiline communications system" in lines 2 and

3. There is insufficient antecedent basis for this limitation in the claim.

Claim 15 recites the limitation "the high-pass filter circuit and the low-pass filter circuit" in lines 2 and 3. There is insufficient antecedent basis for this limitation in the claim.

Claim 16 recites the limitation "the multiline communications system" in lines 2 and 3. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. **Claims 1-3, 6-11 and 14-39** are rejected under 35 U.S.C. 102(b) as being anticipated by Schenk (US 4,937,813).

Regarding **claim 1**, Schenk discloses a method [column 1, lines 5-18] comprising:

receiving an echo signal at a transceiver, wherein the transceiver includes an Analog Digital Converter and Digital-to-Analog Converter [The compensation signal bit groups contain an estimate of what the actual received echo signal component will be. The output of the subtractor SUB, thus, contains the received signal component which corresponds with the received signal with the echo signal component minimized, column 3, lines 10-63]; and

reducing the echo signal with an echo rejecter at an input of the ADC, wherein the echo rejecter has an analog portion and a digital portion [These nonlinearities

may be compensated by coupling the output of this input stage to the second echo compensator. This arrangement will cancel nonlinearities which may be caused by the input stage, column 2, lines 43-48].

Regarding **claims 2-3, 6-8, 10, 11, 14-16, 18-27 and 29-39**, Schenk discloses a method, further comprising minimizing any loss of ADC resolution with a data signal associated with the echo signal [column 3, line 10 to column 9 line 29].

Regarding **claim 9**, Schenk discloses all the limitations of claim 9 as stated in claim 1's rejection above.

Regarding **claim 17**, Schenk discloses all the limitations of claim 17 as stated in claim 1's rejection above.

Furthermore, Schenk discloses a receiver [Receiver on FIG. 1], receiver inputs coupled to the receiver [Hybrid Circuit on FIG. 1], a transmitter [Transmitter on FIG. 1], transmitter outputs coupled to the transmitter [Hybrid circuit on FIG. 1] and an echo rejecter coupled to the receiver and the transmitter [NK1, NK2 on FIG. 1].

Regarding **claim 28**, Schenk discloses all the limitations of claim 28 as stated in claim 17's rejection above.

Furthermore, Schenk discloses a transceiver [FIG. 1].

Allowable Subject Matter

6. **Claims 4, 5, 12 and 13** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

7. Applicant's arguments with respect to **claims 1-39** have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gerald Gauthier whose telephone number is (571) 272-7539. The examiner can normally be reached on 8:00 AM to 4:30 PM.

Art Unit: 2614

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Fan Tsang can be reached on (571) 272-7547. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Gerald Gauthier/
Primary Examiner, Art Unit 2614

/GG/
December 16, 2009